From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: wb2vuo@juno.com (William K Hibbert)
Subject: [3065] 10 MPS, fromerly : Re: Call CQ when the band is dead
Message-ID: <19961028.183858.4727.0.wb2vuo@juno.com>

--------- Begin forwarded message ----------
>From: "Kelly Ellison" <kelman@dialnet.net>

>Hello All,
>With all this talk about calling CQ on a dead band, I would like to echo
a
>plea for a Ten Meter Propagation Study. The Late Winter, Spring and
Early >Summer would probably be the Best time of year. I know that Ten
Meters is a >favorite of many hams. And of course Ten Meters is a
natural for QRPers.

>Just a thought...

>   Let the Flames Begin!

------------------------------<snip>-------------------------------------
>Kelly Ellison
>WB0WQS
>Aurora, Missouri
>kelman@dialnet.net

-------- End forwarded message ----------

No flames, Kelly, but you don't need anyone elses permission to start,
co-ordinate and collate a 10MPS. Post the rules and the reports will
come :)

72/73, Keith, WB2VUO, QRP-L #582
Trustee, KB2YTW/B 10 Mtr Milliwatting Beacon (250 mW @ 28.2870 MHz)
"In the Depths of the Great Bergen Swamp...FN13ac"

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Jeffrey M. Poulin" <jpoulin@erols.com>
Subject: [3020] 80 meters of a 40 meter dipole
Message-ID: <199610281649.LAA26392@smtp1.erols.com>

People of the List:

I am getting an 80 meter module for my Ten-Tec Scout. At the moment my only
antenna is a 40 meter dipole. Should I be able to use the Ten-Tec 291

antenna tuner to make the dipole usable on 80 meters? Or should I plan on assembling a separate antenna? (At the moment I can only use the Novice portion of the band. Something I hope to change in the near future.) Any advice would be appreciated.

Thanks,

Jeff/KF4JSV QRP-L #743

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Gary M. Diana Sr." <gmdsr@shell10.vivanet.com>
Subject: [3001] An image of the TiCK Chip
Message-ID: <199610281315.IAA26239@shell10.vivanet.com>

Hello All -

   There is now an image of the Tiny CMOS Keyer (TiCK) Chip on the Embedded Research webpage:

        http://www.vivanet.com/~gmdsr/tick.html

- Gary N2JGU
  gmdsr@vivanet.com

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: David Adams <adamsclan@netgate.net>
Subject: [3056] Anyone know Ke6mgw, scott r darragh
Message-ID: <32754A3B.34DD@netgate.net>

Sorry to waste the width, but I am trying to find a friend who used to be a member of this list prior to moving to Texas and may or may not be a current in his Norcal membership. Anyone?

73 de dave, n9uxu

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: wager@juno.com (James W. Cates)
Subject: [3037] Attn: Bill Dolson
Message-ID: <19961028.094511.3878.9.wager@juno.com>

(With apologies to the net): Bill, my check returned; no explanation.

???
jim. WA6GER.

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: wb2vuo@juno.com (William K Hibbert)
Subject: [3066] Brockport Amateur Radio Klub (BARK) Homepage
Message-ID: <19961028.183858.4727.1.wb2vuo@juno.com>

This is from the BARK packet PBBS...
==========
MSG#50 10/16/96 21:06:36 FROM KF2XC TO KLUB
SUBJECT: BARK webpage is up
PATH: WB2VUO

The BARK WWW homepage is finally up. You can check out this
work in-progress at the following URL:
  http://www.frontiernet.net/~n2tuk
Presently, it features some photos taken at the 1996 Field Day site.
Upcoming additions may include BARK Bytes articles, construction
plans, more event photos, etc.
  What do YOU want to see on our web page?
73 -John
==========

The 1996 Field Day that is referred to was a 5A/Battery QRP operation.
The same type of operating event is planned for 1997. REMEMBER>>> Field
Day is NOT A CONTEST, it is an OPERATING EVENT. It may end up sounding
like a contest, but the first aim is FUN, not SCORE. See you all in FD
'97!

72/73, Keith, WB2VUO, QRP-L #582 (Chairman, FD '97, BARK)
Trustee, KB2YTW/B 10 Mtr Milliwatting Beacon (250 mW @ 28.2870 MHz)
"In the Depths of the Great Bergen Swamp...FN13ac"

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: David Adams <adamsclan@netgate.net>
Subject: [3052] Cascade Progress
Message-ID: <32753DEC.5840@netgate.net>

Been a while since you heard one of these, eh?

I started work on the Cascade again last night. I got up through the
1st band module and decided "Hey, I'm gonna wind all of the coils that
are left in the kit". Went really well until the last three when life

said "Hey, you don't have any #26 wire left"...I'll have to buzz to the rat shack tonight. I started testing the voltages on the ne602s and found that one of the three installed had proper voltage. I panicked at first. Panicked a bit more...then I whipped out scope probe (if I'm gonna troubleshoot, I'm not going to use no stinking DMM, give me a scope!...not for any techinical reason...I just think it's cool)...turns out my first two bifilar transformers were incompletely stripped and a few bad joints resulted. Fixed that and voila!...voltage as expected. I'm really starting to enjoy this.

73 de dave, n9uxu

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "W. Daniel, 9V1ZV" <daniel@pandora.lugs.org.sg>
Subject: [2993] Component tolerances
Message-ID: <32746598.pandora@pandora.lugs.org.sg>

Hi Gang,

In the course of my experimentation I have also noted wide component tolerances. For example I recommended the 2SC1678 as a good substitute for the MRF476. However, I should note that of the 6 2SC1678's I tried in an exact same circuit:-

2 gave a power of 4.3W
1 gave a power of 4.1W
1 gave a power of 3.5W
2 gave a power of 2.8W

The original MRF476 gave a performance of about 4.0W.

The 2SC1971 topped off at 4.5W. I had only one of these (expensive) parts so I could not do batch testing.

Likewise, of the three 2SC1969's I tried:-

1 gave a 2.5W output
1 gave a 2.0W output
1 gave a 1.5W output

The moral of the story here is that we should not take device specs for granted. If possible, and where design criteria depends heavily on optimum device performance, individual testing is recommended.

The variations I see included device gain differences and output capacitance/impedance differences. I thought I should share this before

anyone starts blindly replacing parts. The above figures should not be taken as absolute but is presented only for the purpose of relative comparison. Thanks.

73 de 9V1ZV Daniel
--

*------------+--------------------------------------+
Daniel Wee	daniel@pandora.lugs.org.sg
9V1ZV	danwee@singnet.com.sg
QRP-L #667	daniel.wee@f516.n600.z6.fidonet.org
+------------+--------------------------------------+

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: wb8ygg@juno.com (Bradley S. Mitchell)
Subject: [3057] Component Values
Message-ID: <19961027.174454.12159.1.WB8YGG@juno.com>

Well, I imagine that this has been said, I didn't really follow the thread on components and tolerances too much, but saw Paul's post and this reminded me to say this..

Example:

Sometimes pf caps are marked

391 for 390 pf, and
sometimes they are marked
390 for 390 pf.

It's not funny to use a 390 for a 39pf!

Makes Oscillators not even wiggle!

73 Brad WB8YGG

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: ukii@megsinet.net (ukii)
Subject: [3069] Contest FUN!!!
Message-ID: <01BBC54C.DE4E9960@randolph2er1-16.megsinet.net>

Hello Gang...
     Just a few comments here on my activity this past weekend..
I was mainly running the 1010 cw contest (which I have been doing
for the past 2 years,and winning 9th call area at QRP levels!)
when there was ZERO activity. I switched over to the phone
portion to kinda see what cndx were like... I heard a few of the
high power Caribbean guys on 10 meters. I was using my
Icom 735 which I did the mod thingie to get it down to 1.2 watts.
Anyway,Sunday afternoon I worked the phone contest for about 2 hours
on 15 meters and 20 meters
and got 10 countries at 1.2 watts! I even got LU4FM,Argentina,which
according to my logging program,is 5570 miles away! COOOOOL....
     It was a coincedence that Saturday night some locals and
I were talking about our contesting adventures on 2 mtrs.
Someone kinda threw down a challange when I told him I could work Aruba with 1
watt. He said "no way" and I promptly told him
 that by Sundays end,I would have 10 qrp contacts on phone...
Well,I did,and he ate his words right on the radio. These guys run amps
and,well,they think I am a nut because I run low power. I actually made
a case one evening when I told them they were running Illegally. Their
comment was NO WAY.. I read the rules and,if I aint mistaken,
"use minimum power required to carry etc etc.."   Well,that
kinda shut um up for a while...hihi... anyway,the one guy with
the big amp (and electric bill) was so impressed,I heard him calling
QRP!! Actually he was running 20 watts,but I didnt wanna rock his
boat and tell him 5 or less...

Now,a question...
     I have a Bird meter with a 5 watt slug. It doesnt have the
peak reading thing so I tune into a dummy load and read output
on cw mode. My question is,,, If the lowest "maximum power"
in constant carrier is 1.2 watts,,, what will it be on Phone???
I cant read it while talking,and,my MFJ tuner meter shows less than
a watt. I am sure I am not driving it to 1.2 watts on phone,so I wonder if
there is a way to measure it??? I kinda guess about 3/4 of full power
or 900mw??? Any help here?

     Sorry for all this...but I am EXCITED!
My first time trying to really get something on a watt in a contest
like this...Just exciting,as I am sure you old flatulators can remember...hihi

          Best 73 and hope you all had as much fun as I did..
               de John
N9UKX

ps... Still no luck making my first 49er contact!
          (sixer of Jolt still available!)

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: PaulKB8N@aol.com
Subject: [3050] Corsair I FS
Message-ID: <961028164058_1214118169@emout13.mail.aol.com>

Gang,

New radio on the way, must sell this very nice Corsair I, have discussed condition in detail in previous posts. Price is now $450 w/ 1 filter, you ship. Astron 35M PS $125. Call at 210-493-6265, or E-Mail for further info.

72, Paul

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: w0rw@kktv.com
Subject: [3063] Crystal Bank
Message-ID: <TCPSMTP.16.10.28.-12.5.20.2240783031.2379996@kktv.com>

Does anyone have a co-op crystal bank in operation?
i think we all have dozen of crystals in our junk boxes, all on the wrong frequency.
i would be glad to send my stock to a Crystal Bank...all we need is a banker
to store, catalog and send them out to users....
is there any interest out there?
72 de w0rw

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Phil, AC6LS" <ac6ls@amsat.org>
Subject: [3016] DAYLIGHT SAVINGS CAUTION !!!
Message-ID: <3274D28D.5294@amsat.org>

With the change in local time in several places due to daylight savings, I would like to remind you that even though you changed your computers time, you need to change the settings in some programs. For example, Most satellite tracking programs have a selection for daylight savings and if you do not "fix" this, you will, of course, be way off in sat. position predictions.

Take alook at what you have, you may be surprised at what needs
an accurate time base.

73 de Phil

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "David D. Meacham" <ddm@datatamers.com>
Subject: [3046] Daylight Savings Time
Message-ID: <Pine.LNX.3.91.961028141557.952D-100000@dt1.datatamers.com>

Phil & the Gang,
I, for one, wish that time changes could be stopped entirely! Not only
does one have to reset clocks, but one's body takes several days to
adjust to the new time. Since people seem to like DST, how about DST ALL
YEAR?
72, Dave, W6EMD
p.s. please excuse the bandwidth...not exactly QRP related.

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Denton Larson <dlarson@ic.waseca.mn.us>
Subject: [3031] dipole with ladderline
Message-ID: <1.5.4.32.19961028064800.0069e638@ic.waseca.mn.us>

Hi Gang,

I have a quick question from those with experience;
I'm prepairing to install a dipole fed with 450 ohm ladderline. It's not
real easy to run the ladderline into the house, so I plan to use a 4:1 balun
at my cable entrance and then feed it with 20 feet or so of RG-8. My main
rig is a TS-440S with the internal tuner. Has anybody tired this setup? is
there enough range in the internal tuner to cover 80 and 40? I'll plan to
try it one way or another, just curious of the results of others.
73/72's Denton
Denton K. Larson dlarson@ic.waseca.mn.us
WB0ZUR   QRP-L #414 QRP ARCI #9116 NORCAL #1563
Waseca, Minnesota USA

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996

From: "Thomas J. Whalen" <whalen@swcp.com>
Subject: [3011] EM-TECH???
Message-ID: <Pine.SUN.3.91.961028075832.14338A-100000@kitsune.swcp.com>

I saw on a flyer for a hamfest something about a EM-TECH 40m cw qrp kit.
Can someone tell me a little bit about this rig? How much? Thanks Tom WB5QYT

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: GREGOIRE@endor.com (ERNEST GREGOIRE)
Subject: [3062] Fate,Altoids,God's will.
Message-ID: <199610290133.UAA228171@nss2.CC.Lehigh.EDU>

Hello Gang,

It must be fate.

There they were, right there in front of me at the deli. A stack of Altoids
mints. There could only be one meaning to this sighting.

God himself wants me to build a 49er.

So I will.

Now where can I get one? I looked in my old mail and didn't find any
references. I will look in the archives if one of you kind souls will
point me to the right area.

Thanks

de AA1IK   N.E.-QRP-C. #202   (Lead by example, It is better to   )
                  QRP-L member #95   (pull a string than it is to push it.)
Ernie Gregoire   FISTS   #2644
RR 1 Box 221
Canaan, NH. 03741

New England QRP Club, information
available on request by sending me a
 S.A.S.E. or via E-mail.

e-mail : GREGOIRE@ENDOR.COM
packet : AA1IK@WA1WOK.FN43FE.NH.USA

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Dale LeDoux <dledoux@laci.net>
Subject: [3059] Finally did it!!
Message-ID: <1.5.4.16.19961028190750.2bf7a812@laci.net>

Well, it's finally come to this: Saturday I mailed my order for a Sierra kit with 40, 30 and 15 meter modules. Hoping to be back on the air soon.

Had a nice hamfest this past Saturday with the local repeater club. It was well attended, with lots of good table stuff ranging fron treasures all the way to the opposite end of the spectrum from treasures, the kind of stuff that makes a hamfest interesting. I really looked, but the closest thing to a QRP rig was a Century 21 with a non-functioning dial drive, so that was the last hurdle...I cam home and wrote the check to Wilderness Radio. Now the wait is on. Got the sodering iron ready...

Dale LeDoux
Bath Electrical Systems
Power Specialists -- 480 V to 230 KV
KD5QI -- QRP-L #602

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Scott Rosenfeld NF3I <ham@w3eax.umd.edu>
Subject: [3043] For sale: Argo 556 QRP xcvr w/40m module & noise blanker (price reduced)
Message-ID: <Pine.3.89.9610281656.E27405-0100000@w3eax.umd.edu>

I have for sale one Ten-Tec Argo 556 in excellent condition (a couple of shallow scuffs near the back of the top case, otherwise excellent).
Radio was used on Field Day with excellent results.

Modified for faster AGC response (changed a capacitor). Built-in keyer with full QSK, RIT control (+/- 1.5 kHz), wonderful IF passband width control (Jones filter), and great audio.

Very sensitive, quiet receiver. TX output can be varied from 1 to 5 watts.

Additional modules are available from Ten-Tec for $29 new. New price w/one module and the noise blanker is $508; I'm asking $375 plus shipping. Since it weighs < 5 lbs, this shouldn't be that much.

Thanks!

* Scott Rosenfeld NF3I Burtonsville, MD FM19mc QRV 80-10/6/2/440 *
*** 6m 75 grids worked on 8 watts *** HF 138 cfmd * QRP-L #147 ***
** QRP ARCI #9054 ** DXCC/WAS/WAC *** 100% dipole powered HF/6m **
* 301-549-1022 h / 301-982-1015 w *** 145.490- 147.225+ PL 156.7 *

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Bill Myers <bmyers@destin.nfds.net>
Subject: [3064] Fox: Got my F I R S T one!!!!!!!!!!!!!!
Message-ID: <1.5.4.16.19961028200159.0bcf2d0a@destin.nfds.net>

Went to the radio room this afternoon and turned the Icom 735 on, checked the antenna, listened around some...made sure the trap was set.

So'd I wouldn't seem to be too impatient, I stripped out the circuit boards from an old RCA VCR (thousands of parts for projects). I kept a good ear on the radio, even copied a couple of slower qso's in my iddy-biddy head.

Then the appointed hour came and as I slid down from .040...BAM...that darn fox slammed into my speaker. You know, Ron, you almost knocked it on the floor, you were so loud. Well... so's I wouldn't seem to impatient again, I listened for a bit and heard Ron get a few. Band was starting to QSB some and the rag-chewers were cranking up. All of a sudden, the band got real quiet and I heard Ron sign...now's the time...threw my call out there...and he answered. Scared the doo-doo outta me. Surprised I copied everything except Ron's number, heart racing, hand shaking, blood flowing f a s t... Using a straight key too, surprised Ron copied all okay, expected to have to repeat something.

But I got through it and then danced a jig around the house. Good thing the wife was at school, but the stepson thinks I'm nuts and the dog wanted outside and the squirrel ran inside his house and started scolding me for making so much noise. Ahhhhhhhhhhh...If they only knew. I got a REAL FOX...and with only 4 watts. Gotta work on less power next time...

THANKS RON.....................

This is the bestest hobby!!!!!!!!!!!!!!!!!!!

72 to All

--
Bill Myers   KK4KF FISTS #2390 QRP-L #755 ARRL
Snail Mail   P. O. Box 178
         Shalimar, FL 32579-0178
Grid   EM60rk

e-mail   <bmyers@destin.nfds.net>
homepage http://destin.nfds.net/~bmyers/
CHECK OUT THE FISTS INTERNATIONAL CW CLUB HOMEPAGE
http://n9nvv.qrp.com/~fists
       ^^^^^ That's N 9 N V V

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: OJWA1YIA@aol.com
Subject: [3067] FOX?
Message-ID: <961028224244_1645822706@emout16.mail.aol.com>

That was no fox....with a signal that big it had to be an elephant!
Good job Ron!

cu---oj qrp-l 732   'anti-matter.....anything duct tape won't stick to...'

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "J. Skalski" <jskalski@acsu.buffalo.edu>
Subject: [3000] FS TEFLON MINI-COAX
Message-ID: <Pine.GSO.3.93.961028075347.10714B-100000@lictor.acsu.buffalo.edu>

Well here is the story....Most people think that about 20' would do it for
them. This will allow me to send it via Priority mail which is $3
including the shipping container.I will set my wire machine to 20'
this will allow the greatest number of people to get cable.

The cable is TFE insulated and has silver plated wire. The center
conductor is stranded. The O.D. is 0.10" and would make a good sub for
RG174.Why teflon you might ask? It won't melt when you solder it
eliminating those pesky intermittant and shorting problems that are common
when using RG174. I like to solder a loop of wire around the braid instead
of twisting the braid and soldering. This gives me a single wire to
connect to a pcb for the shielded part.

The cost is $15 for 20 feet plus $3 for shipping (priority mail-2 day
shipping time CONUS ...3 days Hawaii)
Total $18. Please include a label with your address.

73,

Jim N2GO
The Buffalo QRP CONNECTION

ARCI #9013 QRP-L #381
jskalski@acsu.Buffalo.EDU

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Frank G3YCC" <g3ycc@enterprise.net>
Subject: [3047] G QRP Club
Message-ID: <199610282132.VAA20207@mail.enterprise.net>

A list of all members of G QRP Club is now on my site,
73
Frank G3YCC
QRP Web pages: http://homepages.enterprise.net/g3ycc/

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Ed Tanton N4XY <n4xy@avana.net>
Subject: [3003] GAP replies
Message-ID: <3274AC3E.DD5@avana.net>

Thanks to all who replied to my GAP counterpoise question. Answer was 3
@ 57 feet each. More lowers SWR.
--
72/73

Ed Tanton N4XY EMAIL: n4xy@avana.net TEL: (770)579-3933
Voice/MBX/FAX
189 Pioneer Trail, Marietta, GA 30068-3466

QRP-ARCI#7663 G-QRP#6779 OK-QRP#172 QRP-L#758 AdvRC#140 NORCAL#1779
NCDXF SEDXC
Life Member: ARRL AMSAT IDRA INDEXA QCWA URL:
Coming Soon

"Think you can, think you can't: either way you're right!" Henry Ford

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: SMohan@tele-tv.com (Sam Mohan)
Subject: [3030] HB: Want to buy new DMM! any suggestions?
Message-ID: <274F9A00.1755@tele-tv.com>

I am in the market for a new digital multimeter. Dont need anything very fancy or very expensive, as my HB activities are not that intense. (The analog one I have is terrible when it comes to accuracy!) I solicit suggestions from fellow HBers. About $50 is the budget.

Thanks in advance for your input.

72 Sam N3UTM
SMohan@Tele-TV.com

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "W. Daniel, 9V1ZV" <daniel@pandora.lugs.org.sg>
Subject: [2992] How to wind 9:1 xmission line xfmrs?
Message-ID: <32746a49.pandora@pandora.lugs.org.sg>

Hi,

Okay, let me try again. Can anyone on this list tell me how to wind 1:9 transmission line transformers? I see the diagram on page 2-33 of the 1994 ARRL Handbook and some of the comments there are confusing to me. I'd really appreciate it if someone could explain to me how to wind such a transformer. Thanks.

73 de 9V1ZV Daniel
--

*------------+-------------------------------------+
Daniel Wee	daniel@pandora.lugs.org.sg
9V1ZV	danwee@singnet.com.sg
QRP-L #667	daniel.wee@f516.n600.z6.fidonet.org
+------------+-------------------------------------+

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: bachmann@ari.net
Subject: [3068] HP2800/1N5711 Diodes
Message-ID: <199610290343.WAA07307@mtolympus.ari.net>

Good Evening,
Dan's Small Parts has a Double Balanced Mixer Kit that contains a hank of wire, two ferrite cores, and 4 matched HP2800/1N5711 Hot Carrier Diodes (and instructions). It costs $2. The phone number is 406-258-2782. They have a website but I can't locate it. If it turns up, I'll pass it along. There may be a link to it on one of the QRP websites like http://www.dancris.com/~ki7mn or http://www.fix.net/norcal.html .
I just got a mixer kit but I haven't had time to play with it yet.

I have no connection with them, I'm just a satisfied customer. Hope this helps.

73, Rich Bachmann, N3SLR

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Bowes, Fr. Bruce" <GBB1@MUSICB.MARIST.EDU>
Subject: [3053] HW-8 sold
Message-ID: <28OCT96.19745671.0097.MUSIC@MARISTB.MARIST.EDU>

The rig has been sold.
Tnx
Fr Bowes

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: mvjf@mvubr.mv.lucent.com (James M Fitton +1 508 960 2577)
Subject: [3040] Loop & RF-1
Message-ID: <199610281934.OAA09662@alig1.firewall.lucent.com>

Hi

I love the Autek RF-1, but it takes some getting used to.

The expected Z for a full wave loop is around 100 ohms Z
at resonance. However, the RF-1 is a 50 ohm instrument.

A 2:1 matching transformer would be a handy thing to invent
for occasions like this.

Maybe I should not throw away my Grid dip meter just yet.

You might try to find a "lowest" SWR while reading
75 - 125 ohms Z, and that will (probably) be the
resonant frequency.

There are likely to be a few frequencies with min SWR,
but for a loop, expect around 100 ohms Z.

Good luck

W1FMR

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Dan Hogan <dhhogan@lightside.com>
Subject: [3039] Loop Antenna
Message-ID: <199610281925.LAA09600@covina.lightside.com>

I worked my way around the CCD's for everything but the height limitation(36 Ft. Max.). So I am going to convert my planned dipole to a loop. The dimensions are:

   Top and Bottom 58 Ft.
   Sides 20 Ft.

My initial plan is to feed it at a lower corner using the dipole fittings and ladder line. Any suggestions/improvements? I am plagued with Power and Telephone lines at the front and back of the property which is why I am going to a loop.

72/73
Dan Hogan WA6PBY QRP-L #558, CQC #340, NorCal #1806, ARRL
dhhogan@lightside.com Lat. 34d 03.5'N Lon. 117d 56.0'W
  Grid: OM84wc

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: kf2ph@juno.com (Nick Franco)
Subject: [2989] Love this NW-40 rig
Message-ID: <19961027.235014.13462.3.kf2ph@juno.com>

Hi Gang,

Well, I just signed off the Knightlights Net on 3.710 with the group and figured I'd see how 40 is doing, after all there is a Fox hunt tomorrow night. So I fire up my NW-40 rig and listen around 7.040 - not much happening. I spin down to the lower 25 and check out the DX. There's a decent pile up on P49I (I don't know why the pile up but ...). He's working UP 1 so I start playing with the RIT and get to where I think about 1 up is and I start flaling away with the big guns :-) What do you know, he asks KF2 / QRP ?? AGN.
I come back to him and we make the normal 599 both ways deal (I don't

have an S meter but what the heck, it's all relative anyway). The point is ... the NW8020 kits are great little rigs. The more I use it the more I like it. I recently put in the audio filter and it really works well.

This has been an unsolicited commercial for the NW8020 kits. I don't even have vast experience building kits. I just enjoyed building and now working my little NW40.

72,
Nick - KFox2PH

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: David.Reid@asml.nl (David Reid)
Subject: [2996] N4XY de PA/G0BZF - your mailer failed. (no-one else need read this)
Message-ID: <199610280948.KAA16413@wspub002.asml.nl>

text at the header of the message follows:
---- cut -----------------

>From sun4nl!tiger.avana.net!MAILER-DAEMON Mon Oct 28 10:40 MET 1996
Return-Path: <sun4nl!tiger.avana.net!MAILER-DAEMON>
Received: from eternitas.asml.nl by mihr.asml.nl (5.x/SMI-SVR4)
     id AA04273; Mon, 28 Oct 1996 10:40:46 +0100
Received: from sun4nl.UUCP by eternitas.asml.nl (4.1/SMI-4.1)
     id AA14257; Mon, 28 Oct 96 10:39:46 +0100
Received: from tiger.avana.net by sun4nl.NL.net (5.65b/NLnet-3.4)
     id AA20609; Mon, 28 Oct 1996 10:36:27 +0100
Received: by tiger.avana.net; (5.65/1.1.8.2/30Apr96-1201PM)
     id AA17628; Mon, 28 Oct 1996 04:36:13 -0500
From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: David Adams <adamsclan@netgate.net>
Subject: [3051] New Address
Message-ID: <32753AF2.569C@netgate.net>

For those who care, I've switched my account from dave@flowserver.stem.com to here. The flowserver account has become decidedly unstable.

73 de dave, n9uxu

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: SYDV00A@prodigy.com (MR FLOYD E SMITHBERG)

Subject: [3010] Nov.ScQRPion Meeting
Message-ID: <199610280333.XAA23716@mime4.prodigy.com>

  Attention ALL QRP'rs. The next meeting of the AZ ScQRPions will be held this coming Sat.Nov.2 at 1030 MST:

LUBY's Restaurant (next to HRO)
1933 W. Dunlap
Phoenix

  On the agenda:1) Finalizing the kit project.
2) FYBO Contest
3) Show & Tell....bring your latest HB project.
4) Problems & Solutions...got a problem, ask the experts.
5) Lunch and more discussion on FOX hunt, contests, dx etc., no politics.
6) Adjourn and shop HRO around 1:30.

  All Hams in the area are welcome to attend...become a ScQRPion by simply coming to the gathering....no dues, officers, by-laws, just for fun. Hope to see you all Sat. 72/73

  Floyd NQ7X Phoenix ScQRPion

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: nskousen@scientech.com (Niel Skousen)
Subject: [3024] Novice Fox - Tue.
Message-ID: <v02140b02ae9a8f3f46a5@[198.60.91.132]>

My second turn in the frying pan.....

==== Novice/Tech+ Fox =====

WA7SSA Niel Skousen
 Wed.   10.29.96   7:00-9:00pm MST (UTC-7)
 Thur   10.30.96   0200-0400 UTC
FREQ   7.112 +/- (alt: 7121 +/-)
RIG   FT-757 @ 3.5w (may try NorCal 40 2nd hr... :-)
ANT   Inv.V @ 28 ft, legs E-W
QTH   Idaho Falls, ID
QRP-L   #119

* Standard N/T code speed warning (slow, w/ mem.loss under stress ... :-}
* Patience is a virtue (especially for you 40wpm+ CW ops on N/T Fox nite..)

TNX es GL
73
Niel

---------- -.. . .-- .- --... ... .-   --------------------

Niel Skousen; S.Eng, SCIENTECH.SPG nskousen@scientech.com
208.525.3742, FAX 529.4721 Idaho Falls ID WA7SSA QRP-L.119
----------DN33wm---

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Claton Cadmus" <aplitech@Spacestar.Net>
Subject: [3042] On Multiband Dipoles
Message-ID: <199610282108.PAA22924@Spacestar.Net>

Hello fellow listers,

There has been quite a few postings about dipoles lately so I thought it was time to post this again.

I wrote this some time ago in response to massive postings and boastings about the G5RV antenna system. Nevertheless, there is good infomation here and I have updated it.

KA0GKC RULES FOR MULTIBAND SINGLE WIRE DIPOLE CONSTRUCTION.

Every so often the G5RV myth raises its ugly head. Now I'm not saying it doesn't work, because it does. But so will old bedsprings. I won't go into why I wouldn't put up a G5RV. There was an article called "On Center Fed Multiband Dipoles" March 1994 QST page 34 that says it better then I could. (I think this was the article, I can't find my copy of that QST :-( )

#1.) Avoid cutting the dipole to a lenght that will be a fullwave or even multiple of a full wave on any of your frequencies of interest. Many hams recommend multibanding an 80 meter dipole. Bummer! An 80 meter dipole is a full wave on 40, 2 full waves on 20 etc. The feedpoint impedence will be about as high as you can get and the SWR between antenna and transmitter will be huge. "Well that's what an antenna tuner is for right?" Right, but the SWR still exists even with an antenna tuner and the losses in the tuner and feedline increase with SWR. The little bit you gain by being resonant on 80 is nothing to what you will lose on 40. Not to mention, your antenna tuner will have a hard time getting a match and some tuners won't! You don't have to change the lenght very far to dramatically reduce the SWR. I use a 100 ft wire, works great.

#2.) This one is a little harder. Don't cut your feedline such that it is a quarter wavelenght long or odd multiple at any of your frequencies of interest. You just got the antenna set up so the

feed impedence will be reasonable, a quarter wavelenght or odd multiple feedline can transform a low impedence to high impedence, why ruin it! (Don't forget the feedline velocity factor in the calculations.) In practice it is much easier to tune up on all the bands and if you have a problem on one remove a bit of feedline and try again. So leave a little extra, just it case.

#3.) This is really part 2B. Use the lowest loss feedline you can and be sure the antenna system is balanced. I recommend 450 ohm ladder line. For under 50 watts or less 300 ohm tv twinlead is fine. Either one has less loss than the best coax. If you must use a balun, and if you don't have a balanced tuner you must, it should be a 1:1 choke balun. Probably the best is to simply wrap 30-40 turns of RG-58 coax on a 2.5 to 3.5 plastic pipe. PVC will work fine here. Make sure you use coax with a solid insulation and not foam.

#4.) Orientation is often overlooked and is most important. At the frequency where the dipole is about a half wave, the radiation pattern is slightly broadside, as the frequency increases and the wire becomes over a full wave or more the radition pattern becomes increasingly sharper off either side of the ends, usually in four main lobes. Look on a globe and try to position the antenna so when you use it on 30, 20, 15 etc. the lobes are going in populated directions and not "out to sea". Here is a true experience to emphasize this point.

One evening on the 10 meter band we were having a local rag chew. A station came on frequency. He was about 7 miles ESE from me. He was running a G5RV situated E-W. I had him at S-9+, my friends station, just 2 miles SW of me only had him at S-2. Generally we receive stations about equally. Obviously I was just inside his lobe and my friend was in the null off the end of his wire.

Well that's my 2 cents worth, hope it helps.

Claton Cadmus |73 de KA0GKC
Application Technologies Inc. |ARRL, QRP-ARCI, NorCal
Ph. (612)926-8886 |ARCC, MNQRP&HB Society
Fax (612)926-8545 |ka0gkc@ka0gkc.ampr.org
E-mail cla@spacestar.net |ka0gkc@wb0gdb.#stp.mn.us

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: DYARNES@aol.com
Subject: [3009] Pacificon

Message-ID: <961028095312_1180591037@emout05.mail.aol.com>

Hi All,

It's already been a week since Pacificon, but I'm still pretty charged up from it. I have been so busy since I got back I just haven't had a chance to summarize my thoughts on all that went on there.

Those of you who didn't make it to Pacificon probably feel like you have been whipped enough for your sins! Well, get the lash out one more time, "cuz" you really screwed up! This was really a first class operation. The organizers are to be congratulated.

The facility is very good, and the surroundings are very pleasant as well. There are three full days of activities if you have that much time and stay power. The presentations and demonstrations are excellent. You can't really ask for much more.

Thanks to our NorCal founders, QRP was a BIG part of the program (and the best). I can't say enough good things about all the presentations. Not only do we have a story to tell, but we have some damn fine people to tell it! BTW, Doug kind of down played his presentation on "Getting Started in QRP" (I can't remember the exact title), but I thought it was extremely well done. Assuming you were sincerely interested, if you didn't come away from this presentation with a pretty good idea of what to do and how to do it, then you are in a lot of trouble! And Doug went right to the heart of most people's fears about building gear--WINDING TOROIDS! His demonstation using a roll of toilet paper was terrific. You talk about driving the point home with visual aids! This guy is a pro!

I guess the best part for me was getting to meet so many of the "group". What a bunch of super folks! And there were lots of people there that I didn't get a chance to meet. There was just so much going on.

I don't want to minimize the quality and success of "Four Days in May" at Dayton (besides, I wasn't even there), but I heard plenty of comments from people who attended both that Pacificon may just possibly have been better! Of course, a lot of our friends from the east weren't with us at Pacificon, so there were some very big gaps. Nevertheless, the framework at Pacificon is pretty inviting! Some of those horror stories I kept hearing about from Dayton--bad hotel rooms, bad food, location problems, crowded facilities, etc. make me wonder if it really is worth it! I spent a very leisurely, comfortable, and most enjoyable three days in Concord, California thank you very much!

The trip back home had a slightly anxious moment when I found out my flight had been cancelled. However, America West put me in a cab and sent me to San Jose (a $75 cab fare which they picked up) and put me in first class as far

as Phoenix. Sitting across the aisle from me was Roger Maltbie, who those of you who play golf may recognize. Roger had just finished covering the senior tour tourney for NBC. We spent a lot of the flight talking about Tiger Woods and the guy he had just beat (Taylor Smith--Roger hadn't heard of him either) because he got disqualified for having an illegal putter grip. What a bummer that must have been!

When we were getting off the plane in Phoenix, I pulled my laptop computer and my two (yes two) SLV poles out of the overhead compartment. Roger looked at those poles and my computer and said "Boy, it's gonna be a helluva presentation!"

72 de David W7AQK

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Luke Enriquez <ecsclfe@lux.latrobe.edu.au>
Subject: [3004] Power Output stage of Sierra
Message-ID: <9610281415.AA26120@lux.latrobe.edu.au>

Howdy,
     Can someone tell me what class of amplifier the Sierra has as a final power output. I have seen some references to using class c on CW, with heavy filtering of the output. Is this done to save stanby current?
     I'm asking this because I'm thinking about building a linear 5W amplifier for the Sierra using IRF510 Mosfets which are so cheap its not funny. Anyone who is considering the MRF type Motorola Transistors, look at these devices first! MRF stuff will hurt your wallet (Try $60) for a pair up to 30 Mhz, 20W. IRF510's, whilst limited to a maximum freq of 14 Mhz, cost $1 US from Ocean State.
     The amplifier I want to build would be similar but smaller than the one shown in the RSGB Handbook, 5.22 or something like that under the Building Blocks section. My reasoning is that I want to have 5W capability when I have access to larger than normal batteries (like a Car Battery) or mains power.
     Oh, I spoke to Drew Diamond about his amp, and he swears it pretty hard to blow it up. It will drive, full power, in any SWR. Being a mosfet based push pull device, the only problem that can occur is if parasitic osciallations occur. He overcomes this by using a 470 Ohm feedback resistor from the drain to the gate. Thermal considerations also apply.

Oh, parasitics are a problem because they cause the device to
exceed gate drain voltages and punch-through occurs. Semiconductors
will always be fuses with legs as you know.

2ndly, IRF510's will do about 4W each I think. There are other
mosfets, a cheap motorola one actually, used in switch mode PSU's
that will give you 25W in push pull configuration. If you havn't
played with home brewing before I suggest you practice with
these cheap mosfets before spending big bucks on proper RF
transistors, which will blow up much easier than the IRF devices.

Regards,
Luke

--
 Luke Enriquez VK3DLE   "I only cook with Non-violent
 3rd Year Electronic Engineering   fruit that pulps itself."
 Latrobe University, Victoria, Australia.
 ecsclfe@lux.latrobe.edu.au
--

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Philip Karras <ke3fl@access.digex.net>
Subject: [3012] QRP 27 MHz & 2-meter J-pole
Message-ID: <Pine.SUN.3.94.961028110156.17762E-100000@access4.digex.net>

Well, this IS QRP, tho not ham really. I was at a hamfest this past
Sunday and picked up a mobile 40 channel CB "new out of the box"- so
they said, for $20. Now, at home I don't have a vertical except for a
homebrew 2-meter J-pole, so I figured what the heck. I used the MFJ
tuner and brought it into line hooked up the rig & talked to a mobile
about 15 miles away clear as a bell. I was impressed! I havn't
played with CB since I was about 15 yrs old (about 31 yrs ago) tho I
did try it a few times with some 4 watt output talkies and was lucky
to get a mile or so. I think my son will enjoy this & perhaps it
will spark his interest in amateur radio. How knows, it took me 33
years from the time I was first exposed to ham radio till the time I
finaly got my novice ticket. If I'm lucky he'll beat that poor
responce time :-)

Hey, maybe LB will wat to model this one??

72 & 73 de KE3FL, Phil
:-)

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "W. Daniel, 9V1ZV" <daniel@pandora.lugs.org.sg>
Subject: [3035] RF Amp, transformers and final notes
Message-ID: <3274f583.pandora@pandora.lugs.org.sg>

Hi,

Okay, we're nearing the end here. Just a few notes on transformers.

1. I finally got my 9:1 un-un wound right and put into the circuit right. I observed a marginal power increase, as expected since the collector is now seeing a much lower load.

2. The capacitor from the output collector of the class C final is strongly recommended. I removed the 390pF that I soldered into the circuit just to see the effects. The spikes came right back and I could hear the hash on my 2M handheld 2 feet away. With the capacitor in place, I don't see any nasty spikes and no hash on VHF. Strongly recommended for new design.

3. I originally had a 4:1 output transformer in place and the original circuit used about 8 bifilar turns on a T50-2 core. I subsequently used a 9:1 transformer wound also on a T50-2 core and saw marginal increase in output power. Further reading revealed that this setup would provide insufficient inductance. Typically (as noted in one of the posts), the inductance of the coil should be at least 4 times the load impedance. In my case, the load was the 20 ohms input of the filter so my coil should be at least 80 ohms. On a size 50 core I can get only about 8 or 9 quarifilar turns. Since material -2 has an Al of about 50, this yielded and inductance of about:-

```
L(uH) = (N / 100)^2 * Al

      = 0.08^2 * 50 = 0.32uH
```

which translates to an impedance of 28.1 ohms at 14MHz. This is way below what is required for efficient performance. Even for the original 4:1 un-un, this was not enough. So, I wound another 9:1 transformer on a FT50-43 core with an identical number of turns. The -43 material has an Al of about 523 for size 50 cores. So:-

```
L(uH) = 0.08^2 * 523 = 3.35uH
```

which works out to an impedance of 294 ohms at 14MHz which is well within our requirements. Plugging this transformer into place immediately resulted in at least 0.5W improvement in output power, perhaps even more. At the present I do not know if I choose too large a value as there might be a trade-off somewhere. However, I left this transformer in place. It works well (take note Gary Surrency, this could be relevant to your rig too :-)).

So, my conclusion is to choose cores and wind transformers intelligently. It will result in better performance.

4. Having done that, I notice that now when I tweak the windings of the output filter, I can get a substantial increase in output power, just as the theory predicts. I guess is that all I need to do is pick correct values to give me more output power. No need for that though, with all the improvements and optimizations, the output has climbed from 3W to a full 5W now. However, I strongly feel that I am on the right track here.

5. I put the 2SC1971 into place after twisting the C and E pins to fit the board layout. Having soldered this into place I observed a good increase in output power, this being a higher gain and higher power part. The MRF476 was rated for 3W. Pushing the output power beyond this resulted in poor IMD performance. With the 2SC1971 in place (rated for 7W) I should be safer off. This also gave me a higher ceiling. However, I needed to REDUCE the drive to peak the output power. This is not surprising since it only needs 40mW for optimum drive and my modified driver stage can supply well past this.

6. Since the driver stage is now driven softer, it hardly gets warm at all! Amazing! I had put a large heatsink on it just in case it gets warm but with all the changes in place, it is quite cool. I attribute this to the use of a more rugged part, as well as to better matching everywhere and suppresion of spurious signals, especially in the VHF. The signals everywhere look clean now, as compared to the spikes I previously observed. Because it is running cool now, I see much less power variation due to thermal effects. Isn't this great!!??

Well, what can I say. I am really satisfied with the results of my long and arduous experiment. Now I can sleep with the assurance that my transmitter is performing optimally and output is cleaner than before. I am going to check this out on the spectrum analyzer once I clear up my desk, tomorrow. I've been sleeping at 3AM for the last 2 weeks as I worked on this experiment and did my reading up. Now, I have aligned the rig to within 10Hz accuracy (synthesized rig - ARK-20), and thermal stability is good due to reduce heat dissipation. Everything is optimized. This is one HOT rig, both the TX and RX, let there be no doubt about that.

Tomorrow I will replace the relay with a new one and screw the lid shut. That will be the end of this phase of my experiments. My next phase will be to study MOSFET power amps. I have a push pull unit which is performing badly waiting for similar analysis.

Final notes

I really need to thank those who have offered their advice on various questions that I had posed. My appreciation also goes to those who have offered moral support by your responses to my postings. Knowing that this is helping someone kept me going when I thought of taking this into private e-mail.

Now, before the last screws go in:-

1. ANY QUESTIONS class? Anyone want me to clear up on some points?

2. ANY SUGGESTIONS as to how I should present all this data. There is quite a bit of it here, and some are duplicated in popular publications here and there although there are quite a few gems in here which I had not know before. So, anyone want to see this written up properly, or is this redundant in view of all the other good books out there?

Speak now or forever remain silent! :-)

73 de 9V1ZV Daniel
--

Daniel Wee	daniel@pandora.lugs.org.sg
9V1ZV	danwee@singnet.com.sg
QRP-L #667	daniel.wee@f516.n600.z6.fidonet.org

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: mvjf@mvubr.mv.lucent.com (James M Fitton +1 508 960 2577)
Subject: [3021] Slingshot
Message-ID: <199610281654.LAA28031@cbig1.firewall.lucent.com>

Additional tips for antenna slingshot users.....

Dont mount the Zebco reel on anything.
Hold it (carefully) between the knees,
and point it toward the target.

Caution .... Sinker and line go over the top,
from the rear, and then into the pouch !!!!

Use a weaker leader tied between the sinker and the
rest of the line on the reel.

The weaker test leader will break first when the sinker
gets tangled way up in the branches.

Paint sinkers with wild colors.

Bring along extra sinkers and leaders.

Folks will ask.... How in the devil did you get that
wire so high in the tree ?
Have an interesting answer.....

72/73 Jim Fitton, W1FMR NE-QRP <>< NH

E-MAIL changed to jfitton@mv.lucent.com

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Steve Bornstein <saborns@freenet.columbus.oh.us>
Subject: [3048] Source for XTALs?
Message-ID: <Pine.3.07.9610281622.A9318-8100000@login>

Hello Gang,

Does anyone have a source for 7040 kc XTALs in FT-243 cases for use in the
"Bare Essentials Transmitter". I would like to build an authentic "period"
piece.

73, Steve K8IDN QRP-L #331

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996

From: PGSPersEng@aol.com
Subject: [2991] Spreading the word
Message-ID: <961028021347_219247055@emout05.mail.aol.com>

Hi gang,

Since a recent posting by W0RW mentioned my recent editorial, I thought I'd throw in a few words. I think all hams like to spread the word about the hobby in whatever way they can, but my "reach" is perhaps a bit broader than most. I'm the founder and chief editor of a small trade publication called "Personal Engineering & Instrumentation News" with a circulation of 50,000. (I'm also the ex chief editor of EDN and have enjoyed lurking while the comments about the recent article have appeared on the list.).

I think it's too easy for editors in the technology field to lose touch with the real world when they write their stories simply based on interviews and datasheets. Thus, everyone on my staff (myself included!) must do one hands-on project per year. As my task, I decided to see how easy it would be to create a graphical user interface in VB4.0 under Win95 for a serial instrument. Gees, what a coincidence, but the serial instrument I chose was my FT-990! Obviously, there are some advantages to being an editor: I needed VB 4.0; call Microsoft and it's on the doorstep the next day. Need a copy of The Software Wedge from TAL Technologies? Same thing. Need some neat OCXs for recreating the analog meter? Just place a call to National Instruments and ComputerBoards and they're happy to send the software in hopes of editorial coverage.

The project was fun and I hope instructional to my readers. But I also took the opportunity to write the lead editorial on the topic of ham radio. For the benefit of those who don't get the magazine (surf over to www.pein.com and get details on how to get on our subscription list -- it's a freebie!), I'm including the text of that editorial. Note that the full text of the FT990 article along with all the content of the October issue is scheduled to be posted on our web site sometime on Monday 10/28.

You won't see the magazine cover in the text-only format, but I did reproduce the FT990's front panel. In quiet homage to the TMPS and all you QRP-Lers, I set the frequency to 10.116. However, it wouldn't take readers of this long to notice the pretty stupid error I made on the cover in my rush to meet deadline. Funny, either not many of my readers are hams or they didn't notice the glitch, because not one of them let me hear about it -- and I'm sure they would have!! (OK, I won't keep you in suspense -- the radio button for Mode is set to LSB. Don't you think I was mad at myself when I noticed it during the final print proofs? Either hold back the presses at outrageous cost or eat my pride...)

Anyway, here's the editorial. I hope you enjoy it.

72,
Paul Schreier, Editor
Personal Engineering
AA1MI, QRP-L #360
[[Keeping my fingers crossed for N1ND, "Number One Notre Dame". Sorry, Chuck, but Texas teams just have no luck against the Irish!]]

"A hobby for the 21st century"

After an absence of two decades due to the time demanded by starting both a family and a magazine, I returned to a favorite hobby, ham radio. Was I ever shocked to find out about the exciting things that had happened over twenty years. And if you have the image of an old-timer sitting behind a desk full of tube-based equipment clicking away at a Morse-code key, you're in for a shock, too. Digital technology and especially PCs have come to play a pivotal role in many ham activities, as indicated by my project, reported on pg 43.

First, though, I've been astounded by some things hams do that don't involve cutting-edge technologies. For instance, with a 2m handheld radio selling for several hundred dollars, hams have made contact with astronauts on the Space Shuttle and the Russian station Mir. In fact, the next flight of the Atlantis (delayed by bad weather as I'm writing this editorial) will have three hams on board. Under the auspices of SAREX (the Shuttle Amateur Radio Experiment), they'll make prearranged contacts with schools in Kansas, Ohio and England as well as with family and friends of other crew members. Further, transceivers on such space vehicles as well as a variety of satellites implement the ultimate repeater where a ham with low-power equipment can talk to another thousands of miles away.

Back on the earth, one of the latest applications using VHF is APRS (Automatic Packet Reporting System). With a low-cost rig and public-domain software, you can display a map that shows the locations of any reporting stations. In the simplest case, an operator manually enters his latitude and longitude. Lately, though, manufacturers of terminal-node controllers (the equipment that sits between a PC and a ham radio) have started making their units compatible with GPS receivers to a mobile station can continually update its position.

Packet radio, whereby hams get their PCs talking to each other over the air, has also become a routine operation, and some operators have set up their stations as packet bulletin boards that exchange messages with other nodes around the country and the world. Presently, an implementation of TCP/IP has become increasingly popular for hams who wish to establish a link between their PC and a packet node; public-domain versions of NOS (network operating system) have become available for virtually every type of PC and Unix.

Digital communications on the high-frequency bands are also popular. Older schemes such as RTTY (radioteletype) suffer from the signal fading and interference common on the hf bands, so hams have been clever in developing error-correcting transmission schemes. One of the most sophisticated is Clover, which uses a 4-tone modulation scheme. Depending on signal conditions, it automatically selects any of ten phase-shift, amplitude-shift or frequency-shift modulation formats. When running a 16-phase 4-amplitude modulation scheme it moves data at 750 bps. And if transmission errors do occur, Clover employs Reed-Solomon coding so it can often reconstruct damaged data without the need to repeat transmissions.

The list goes on and on. A few adventurous hams are making contacts with EME (earth-moon-earth), also known as moonbounce. Some are experimenting with spread-spectrum transmissions or microwave contacts, while a few others have started working with digital TV transmissions using MPEG-2 compression.

Despite these sometimes exotic modes, I most enjoy the long-popular activity of running my station on the hf bands at QRP (low-power) levels. There's something magical about putting 5W into a hunk of wire and working a station halfway around the world. But that's the beauty of this hobby -- no matter what your interests, tastes or sophistication level, it has something to offer. (Readers interested in finding out more about these and other modes should contact the American Radio Relay League's home page at www.arrl.org/.)

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: adams@chuck.dallas.sgi.com (chuck adams)
Subject: [3005] SS Nov2-3
Message-ID: <199610281433.OAA17006@chuck.dallas.sgi.com>

This next weekend is the big one and there has been
some discussion on the topic. Preparations are going
on as we speak all across the land.

For those who won't be doing the 30wpm and above
there is the 10-13wpm frequencies of 3665-3705KHz,
7090-7130KHz, 21090-21130KHz, and 28090-28130KHz.

I may sneak up there once in a while and see if
any of you guys are on or run across you as I am
moving up and down the bands.

The NORTEX group will meet at the regular bat time
and same bat channel. The contest does not start

until 3pm Saturday. I will be doing the 24 hr thing.
You do not want to challenge me this year. :-)

Film at 11. Good luck and see you there.

dit dit
: Chuck Adams (K5FO CP-60) WAS 40m/30m/20m=49/49/50
: EMPS QSOs=3 STATES(w/c)=3/2 DX=0 : MO TN OK

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: KC7FYS@aol.com
Subject: [3058] T88T and XY1U
Message-ID: <961028194440_1913417941@emout04.mail.aol.com>

Hello norcal friends.
I worked XY1U and T88T this weekend, both of them were contesting and logging fast, so I didn't have a chance to get QSL path information, or anything.
 Does anybody have more information on either of these stations? I may be crazy, but I thought XY had a prohibition on amateur radio. I thought XY1 said "QSL via JA8RUZ..." And where is T88T?
Jonathan 7J1AWL\KC7FYS
PS. *QRO* QSO's, so pse don't bother the list with your replies, you can email me dir.

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Ahrens Tim" <tahrens@devmail.sps.mot.com>
Subject: [3036] Thanks for W7EL Info
Message-ID: <9609288465.AA846544341@devmail.sps.mot.com>

Thanks to everybody for their inputs on how to contact
Roy!

cu

Tim WA5VQK

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "W. Daniel, 9V1ZV" <daniel@pandora.lugs.org.sg>

Subject: [2994] Toroid material for transformers
Message-ID: <3274690f.pandora@pandora.lugs.org.sg>

Hi Gang,

I have a few questions about the selection of toroid material for use in winding transformers.

1. For frequencies such as 14MHz, how would the choice of different materials affect the performance of a transformer? For example, if you were going to build:-

   a) A broadband transformer
   b) A resonant transformer

   How would you go about selecting the type of core to use?

2. In transmission line transformers, I seldom see specifications for the number of bifilar, trifilar, quadrifilar, whatever, turns to use. Why is this so? How do I determine how many bifilar turns to use in a 1:4 transmission line transformer, for example?

   Thanks.

73 de 9V1ZV Daniel
--

*------------+--------------------------------------+
Daniel Wee	daniel@pandora.lugs.org.sg
9V1ZV	danwee@singnet.com.sg
QRP-L #667	daniel.wee@f516.n600.z6.fidonet.org
+------------+--------------------------------------+

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Ahrens Tim" <tahrens@devmail.sps.mot.com>
Subject: [3008] Vanity Call - Info
Message-ID: <9609288465.AA846528890@devmail.sps.mot.com>

'Laurie' at the FCC's consumer line said that
'we may see something this week'. In time for SS?
dunno!

Inquiring minds want to know!

Tim WA5VQK

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Ahrens Tim" <tahrens@devmail.sps.mot.com>
Subject: [3006] W7EL? How to contact?
Message-ID: <9609288465.AA846528410@devmail.sps.mot.com>

Does anybody know if Roy has an E-mail address, or
other method of 'rapid' communications?

Thanks,

Tim WA5VQK

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Jim Dolson <dolsonj@ix.netcom.com>
Subject: [2998] Want-To-Buy: St. Louis Tuner (kit or built)
Message-ID: <1.5.4.32.19961028123142.008f2658@popd.ix.netcom.com>

Does anyone have a St. Louis Tuner that they just don't have time to build
(or, for that matter, a built one that they don't have time to use?

Jim
WB8ZBD
dolsonj@ix.netcom.com

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "L. B. Cebik" <cebik@utkux.utcc.utk.edu>
Subject: [2999] Working soft aluminum
Message-ID: <Pine.SOL.3.94.961028074055.5793G-100000@utkux4.utcc.utk.edu>

Some messages a short while back showed some concern for working the kind
of soft aluminum out of which chassis, cases, and utility boxes are made.
Adjusting dimension by an eighth of an inch, deburring edges cut with a
hack saw, rounding corners, etc. are all problems if all you have is
either a hand file or a grinding wheel. The hand file is so slow and
tiring, and the soft aluminum either gums up the grinding wheel or gets

grabbed and mutilated by it.

A better way is to sand the aluminum. For deburring, a sanding block and medium (and then finer) paper takes care of the problem. But what about larger adjustments?

Try a sanding wheel (disk sander). It can be a bench unit, like my combo disk/belt sander. It can be a hobbyist unit, like the one built into the side of my ancient Dremel jig saw. Or it can be an AC power drill with a locking trigger strapped on a homebrew wooden jig and clamped to the bench. I have used all these systems with success.

Now hit your hardware depot or even X-mart (fill in the X for your area). They sell not only thin paper disks, but also heavier sanding (sometimes called grinding) disks that mount in the chuck, with or without a backing pad, according to disk construction. A medium grit heavy disk (they are red for easy spotting as you go down the aisle) will make short, clean, and easily controlled work of taking down an aluminum edge by an eighth inch, rounding the corners, etc. Freehand is ok for touch-up or non critical work, but a table in front of the wheel sure helps when you want to keep an edge straight for several inches. Use a light touch and do not try to remove everything in 2 seconds. 30 seconds of careful work is still better than an hour's work with a file. Use finer grades of paper with a wheel or block for finishing the edges to perfection.

If you do a decent amount of building, over the years you will need to fabricate baffles, small brackets, etc., and old, otherwise worn out aluminum cases and chassis are ready sources of aluminum stock. A hack saw cuts the rough shape. From there on the task is daunting (meaning "I wish I had a son to assign this work to"), unless you are equipped. A disk sanding system of one of the types noted above is not expensive, and once you have it, you will discover lots of other uses, as you sand, wire brush, grind, and polish everything in sight.

NOTE: YES, I AM SHOUTING: WEAR SAFETY GLASSES WHEN WORKING WITH THIS KIND OF EQUIPMENT!

Back to a whisper. If you love to build, consider designing yourself a shop full of power aids, carefully planned and aquired, not always the heaviest units around, and finally placed and stored so as to make them easy to use and easy to keep clean when not in use and--if necessary--very compact to store. Kits and scratch building projects come and go, but a shop is a long term investment in "Yes, I can do that!"

-73-

LB, W4RNL

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Thomas J. Whalen" <whalen@swcp.com>
Subject: [3055] xtal wanted
Message-ID: <Pine.SUN.3.91.961028165329.27953A-100000@kitsune.swcp.com>

Looking for a xtal for 7.040. Where is the best source? Will have my Bare
Essentials smokin on 40 soon! Thanks Tom WB5QYY qrp-l 640

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: George Gingell <k3tks@u1.abs.net>
Subject: [3071] Re: 120VDC on Soldering Iron
Message-ID: <Pine.BSI.3.93.961028233340.2247C-100000@u1.abs.net>

Scott,
I guess I read it differently, I thought you went ahead and used it on the
roof with 120VDC. I guess I just assumed that You would have all those
batteries down on the groound and hence the need for the 100 foot
exttension cord. I suspect that would have protected the iron. :^)
Next time, just come over and borrow my Butane Soldering Torch. :^)
OBTW - Hope you did good in the QSO Party.
QRP DX TU (C) 1986 G.Danny Gingell, K3TKS@.abs.net

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Patrick Taber <ptaber@logicraft.com>
Subject: [3023] Re: 80 meters of a 40 meter dipole
Message-ID: <1.5.4.32.19961028171142.00d204b4@freebird>

>I am getting an 80 meter module for my Ten-Tec Scout. At the moment my only
>antenna is a 40 meter dipole. Should I be able to use the Ten-Tec 291
>antenna tuner to make the dipole usable on 80 meters? Or should I plan on
>assembling a separate antenna?

We hold these truths to be self-evident:

- if you have room to put up an 80M antenna, do it.
- if you don't then put a tuner on the antenna you have.

An antenna meant for the band it's being used on will always, always, always

be better than one being coerced onto a band it wasn't meant to be on. BUT an antenna (or raingutter or drainspout or window screen, etc.) that can be loaded up always, always, always beats no antenna at all.

Do the best you can before the key goes down. But when the key is down, use what you have to best advantage. 'Tis better to operate in suboptimal conditions than not to operate at all.

>>>==>PStJTT

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Phil, AC6LS" <ac6ls@amsat.org>
Subject: [3017] Re: An image of the TiCK Chip
Message-ID: <3274D345.BE5@amsat.org>

Gary M. Diana Sr. wrote:
> >   There is now an image of the Tiny CMOS Keyer (TiCK) Chip on
> the Embedded Research webpage:
>
>   http://www.vivanet.com/~gmdsr/tick.html
>
> - Gary N2JGU
>   gmdsr@vivanet.com

I went to the web page and checked it out. SO, is this picture an Acutal size ????? ;-)

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "L. B. Cebik" <cebik@utkux.utcc.utk.edu>
Subject: [2997] Re: Antenna Cutting
Message-ID: <Pine.SOL.3.94.961028071852.5793F-100000@utkux4.utcc.utk.edu>

Why is the SWR 1.9:1 with Zs of 33 to 50 ohms?

Answer is that SWR is not a function of feedpoint resistance alone, but is a complex function of R and jX. Exact formula is in the books, not here at my office machine. However, general principle is this: any jX will increase SWR, even if the R part of the feedpoint Z is less than 50 ohms to start with.

The problem begins with most antenna books: they explain SWR in terms of the "simple" case of a purely resistive load. THat makes SWR look easy,

because without any jX, Zl/Zo (of line) or Zo/Zl (of load) = SWR. But most antennas have at least a little jX at the feedpoint. So, if this is not old hat, everyone should go back to the books and look up the exact expression for SWR (and for reflection coefficients) and plug a few examples of relevance through the calculator--make up a few typical curves and file as reminders as to what really happens to SWR away from resonance.

It takes these expression (formulas, equations: choose the word that sounds least scary) to understnad how to calculate things like the proper position for a stub on a feedline and lots else. So please move up a notch in your understanding of SWR/reflection coefficients to make a big increase in your understanding of your antenna/feedline system.

-73-

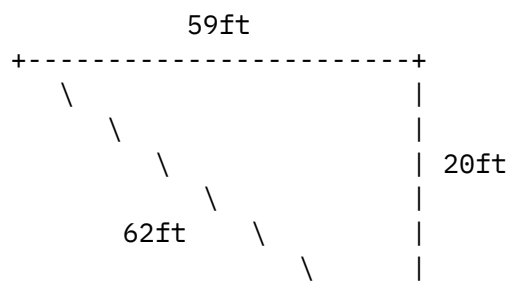
LB, W4RNL

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Cecil A Moore <Cecil_A_Moore@ccm.ch.intel.com>
Subject: [3013] Re: Antenna Cutting

>Now for the question - The lowest SWR I get is 1.9:1 reading which is
>also at my desired Freq. (7.000 MHz) the Z is 33.   This is also the
>lowest Z reading. Why isn't the Z = 50 and the SWR closer to 1.1 if
>this is my closest match to my antenna? I can find a Z of 50 and a SWR
>of 1.9 at 7.100 MHz again with Z = 50 why isn't SWR 1:1.
>Brad Mugleston - KB0ROL

Hi Brad, A delta loop is supposed to have 100 ohms feedpoint resistance at resonance. Sounds like you hit it pretty close. SWR = 100/50 = 2

I just went through the same thing and wound up with a triangular loop. You can get 50 ohms feedpoint resistance from a delta by changing the lengths of the sides.



```
                          \  |    choke
                             + <==[][][]==== 50 ohms
```

It started out as a delta and you can see how I changed it to a
triangle. It has about 3dBi gain and works on 20m, 15m, 12m, and
10m with an antenna tuner.

73, Cecil, W6RCA, OOTC

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Dave.Ackrill@Westwood45.powergen.co.uk
Subject: [2995] Re: Bandwidth-or how to half it!
Message-ID: <961028093155Z*/G=Dave/S=Ackrill/O=Westwood45/PRMD=POWERGEN/
ADMD=CWMAIL/C=GB/@MHS>

> I agree with Mel,
>
> I would ask that people should please keep the repeated text to only that
> relevant to their reply. In my opinion, several messages that append the
> whole of the original don't need to as they answer the question or put
> their point fully anyway.
>
> The guys that pay by the byte must really get hacked off by long
> repeat messages with just three words at the end, and it does nothing
> for me to wade through the same message several times as well.
>
>
> Cheers de Dave (G0DJA)

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Gary Surrency <gsurrenc@ix.netcom.com>
Subject: [3025] Re: Component tolerances
Message-ID: <3274EE31.51F9@ix.netcom.com>

W. Daniel, 9V1ZV wrote:
> ---SNIP---
>
>   The variations I see included device gain differences and output
> capacitance/impedance differences. I thought I should share this before
> anyone starts blindly replacing parts. The above figures should not be taken
> as absolute but is presented only for the purpose of relative comparison.
> Thanks.

Gang,

I have noted wide variations in component performance like this, so much so that now I typically either tack solder or use molex socket pins at critical points in my projects and kits. This allows quick substitution of another device without trashing the PCB. After selecting the device I prefer, I remove the molex pins and/or solder the device in permanently. I heartily recommend this procedure to those who comtemplate getting the most out of their projects and kits.

In particular, I have seen much better performance in circuitry that uses a transistor for T/R switching, where the device's ON state may have Vsat voltages that are poor (too much C to E drop). In circuits that push the ON state of the popular 2N3906 transistor, some have rather high VsatON, so I usually try several of them, or put a 2N4403 in it's place. Sometimes the improvement is startling.

Areas to look at in this respect are in the transmitter mixer and pre-driver/ driver
chain. Also check to make sure you don't get improper biasing voltages, or in the case where a diode is in the base-to-ground path, the diode is reversed or is bad.

I have had poor zener diodes in some of the kits I built, so this is another place to take some voltage readings. If your kit uses monolythic capacitors, they are easy to destroy if you push the leads down too hard and stress the package. When a soldering iron then heats the leads up, the internal connection to the ceramic material can come loose. Then you have an open or intermittent connection to the cap. Moral: Don't force the leads down too hard if the component doesn't fit the PCB lead spacing, or carefully re-shape the lead to line up better with the holes.

Likewise, check out any 3-terminal voltage regulator for low output voltage. Some LM7805s and LM7809s have been on the low side of their output voltage specs, and the same is true for the LM78L05s and LM78L09s. Little improvements here and there start to add up quickly when you have marginal performance or low transmitter output.

Thanks for pointing this out, Daniel.

72/73,
--
Gary, AB7MY QRP-L #571 Chandler, AZ (near Phoenix)Grid Square DM43BH

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Paul Harden <pharden@aoc.nrao.edu>

Subject: [3033] Re: Component tolerances
Message-ID: <199610281854.LAA06629@zia.aoc.nrao.edu>

With the recent talk of noted component variations ... a caution mentioned on QRP-L before bears repeating: always be a bit suspicious of the specs of components purchased from some of the hobby vendors. This is not an insult against any of our favorite mail-order places, but it is a known fact that *some* of the components carried by these places are less than perfect, manufacturer "rejects" (a bit below commercial grade specs) and so forth. In some cases, these less-than-ideal component variations can bite us.

A few personal first-hand cases that come to mind:

1. Leaky 1N4148 diodes: 50K-100K when reversed biased (vs. Megohms)
2. A batch of crystals, same frequency, with large variations between the actual frequency ... sometimes high insertion losses.
3. Zener's that zener significantly below the stated voltage.
4. Variable capacitors of the poly film variety (little sqaure plastic jobs) that fall far short of the stated tuning range and very lousy Q's. Obviously rejects, but sold in the catalog under the anticipated specs.
5. I have gone through batches of 2N2222's, 2N3904's, MPF102's, etc. in oscillator/RF amplifier circuits where no two of the same type (purchased as a batch) performed the same. Some have very low hfe's (some even hotter than claimed), that can make the circuit work almost completely different from one unit to the next.
6. I've never seen a voltage regulator (78xx family) whose output was too far from that stated - but have found those that are very sensitive to input power supply changes or produce noisy outputs (100mV of white noise).
7. Some wild variations in actual resistor or capacitor values, particularly the "cheapie" varieties. If used in non critical ciruits (bypass, audio coupling) no big thing, but in tuned circuits, watch out.
8. Have seen .01 and .1uF caps, used in audio filters or audio coupling circuits, with high dissipation factors (high internal resistance) - enough to keep an active filter from working.
9. Fuzes that were shorted right out of the box.
   (Hey, seeing if you're paying attention -hi).

Most of us get our parts from mail order hobby vendors, and for the most part, get good parts. But never assume every part is perfect. Devise methods to check the parts if possible. As a minimum, buy several of each and test them in the circuit for the best performer where it may be critical.

72, Paul NA5N

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Kevin Muenzler <muenzlerk@uthscsa.edu>
Subject: [3049] RE: Daylight Savings Time
Message-ID: <01BBC4E5.5CDF17E0@muenzlerk.uthscsa.edu>

On Monday, October 28, 1996 8:20 AM, David D. Meacham[SMTP:ddm@datatamers.com] wrote:
>
>
>Phil & the Gang,
>I, for one, wish that time changes could be stopped entirely! Not only
>does one have to reset clocks, but one's body takes several days to
>adjust to the new time. Since people seem to like DST, how about DST ALL
>YEAR?
>72, Dave, W6EMD
>p.s. please excuse the bandwidth...not exactly QRP related.
>
>
>
>

I've always wondered why someone doesn't invent a watch/clock with a daylight savings time button on it. Just push the button and it automatically adjusts for you. My grandmother equated daylight savings with cutting a foot from one end of a bed sheet and sewing it on the other end.

Kevin

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: FACMSA@facilities.buffalo.edu (Adams, Mark S.)
Subject: [3041] RE: dipole with ladderline
Message-ID: <1996Oct28.144600.1483.26502@facilities.buffalo.edu>

To Denton and the Gang,

I too had trouble figuring out how to get ladder line into my shack which is in the basement. It turned out to be quite ease! Here is how it worked out.

I have one window in the basement right above my operating desk. It is a glass block type with a little opening in the middle that houses a crank out window and a replaceable screen. I measured the screen size and cut a 1/4" piece of Plexiglas to those dimensions. In the middle of the Plexiglas I made two marks for the wires of the ladder line. I drilled the two holes and then cut a slot between them to allow the ladder line to pass through. I then replaced the screen with the new plexi panel. After installation in the frame I caulked around the ladder line. A panel like this allows the ladder line to pass through without being too close to an metal.

The panel is soon to get both BNC and SO239 bulkhead connectors for use with more antenna projects. I hope this idea helps.

72, Mark N2VPK
Member of the Buffalo QRP Connection

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Claton Cadmus" <aplitech@Spacestar.Net>
Subject: [3044] Re: dipole with ladderline
Message-ID: <199610282108.PAA22922@Spacestar.Net>

Denton Larson <dlarson@ic.waseca.mn.us> wrote:

> I'm prepairing to install a dipole fed with 450 ohm ladderline. It's not
> real easy to run the ladderline into the house, so I plan to use a 4:1
balun
> at my cable entrance and then feed it with 20 feet or so of RG-8. My
main
> rig is a TS-440S with the internal tuner. Has anybody tired this setup?
is
> there enough range in the internal tuner to cover 80 and 40? I'll plan
to
> try it one way or another, just curious of the results of others.

I use this setup myself and it works fine. The 20 feet of RG-8 will not be a problem. You don't need a 4:1 balun, any type of 1:1 current balun will work well. The one piece of information missing is, how long is the dipole?

I'm seeing quite a few basic dipole questions on the list lately. Watch for my next post.

Claton Cadmus |73 de KA0GKC

Application Technologies Inc. |ARRL, QRP-ARCI, NorCal
Ph. (612)926-8886 |ARCC, MNQRP&HB Society
Fax (612)926-8545 |ka0gkc@ka0gkc.ampr.org
E-mail cla@spacestar.net |ka0gkc@wb0gdb.#stp.mn.us

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Michael A. Gipe" <mgipe@reliablemeters.com>
Subject: [3015] Re: Effects of solder flux on circuit
Message-ID: <199610281631.KAA21429@multi2.pic.net>

Very good question, Daniel.

I'm not an expert on this, but I do have some experience to relate. In theory, the lousy dielectric properties of residual flux could have an effect on circuit operation, but, in practice, it is never seen. I have worked on circuits up to 1.5 GHz where I fully tested them before cleaning and retested after cleaning and found no difference in operation, performance, or specifications.

However, I am a true believer in cleaning boards! The problem is that flux, by its very nature, is corrosive. Most electronic fluxes exhibit low to medium activity, which means they don't boil and sizzle when you put them on copper, but over the long term, they will slowly but surely eat away at the metal in your circuits.

I have a small squeeze bottle of flux that I use for surface mount work. To keep the nozzle tip from clogging, I keep a 1/4 w resistor lead stuck into the tip when not in use. The flux that is in contact with the wire lead has eaten through the solder tinning and started etching the copper in the wire, which has turned a very attractive shade of green.

I have examples of a commercial product that I designed, where the fabrication house failed to fully clean the flux off the boards. Some of these boards were subsequently exposed to higher than average humidity (but well within normal humidity limits). The circuits are encrusted with very nasty looking white crumbly crud. We had the boards tested by a metallurgical lab, which identified the white crud as oxides of the tin, lead, and copper circuitry formed by the interaction of residual flux and water.

If you want your project to keep working long term, clean the flux off.

Another advantage to cleaning the boards is that it helps reveal poor solder joints that would hide behind flux residue.

Although most hobbyists are not likely to encounter it, water soluble flux poses different problems. This flux is somewhat soluble in water, and is used commercially to avoid the environmental problems associated with normal flux cleaning solvents. After assembly, the boards are washed with streams of very hot water to remove the flux. Small prototype lots are often washed in the lunchroom dishwasher! The biggest problem with this flux is that it is conductive! If you haven't completely removed it, and it is hard to remove completely, it will leave a film of conductive material on the board, which can wreak havoc with the circuit's operation. Although most disruptive to high-impedance instrumentation circuits, it can affect RF circuits, as well. Fortunately, most of these fluxes have a unique odor when heated, so they are easy to identify when you are soldering. That's why I like to hang around the lab when my latest 10 Megohm input instrumentation amp is being prototyped! More than once I've had to stop disasters about to happen.

Hope this helps.

Mike K1MG

> From: W. Daniel, 9V1ZV <daniel@pandora.lugs.org.sg>
> To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
> Subject: Effects of solder flux on circuit
> Date: Sunday, October 27, 1996 8:26 AM
>
> Hi Gang,
>
>   I was wondering if anyone has any thoughts about what kind of effect
> solder flux has on a circuit, RF especially. I have noticed that some
people
> emphasize cleaning the flux off the boards which is something I have
never
> really done. I wonder if the flux itself has resistive or capacitative
> effects at HF that we should be aware of? Thanks.
>
> 73 de 9V1ZV Daniel
> --
> *------------+-------------------------------------+
> | Daniel Wee | daniel@pandora.lugs.org.sg |
> | 9V1ZV | danwee@singnet.com.sg |
> | QRP-L #667 | daniel.wee@f516.n600.z6.fidonet.org |
> +------------+-------------------------------------+

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Bob Hightower <ki7mn@dancris.com>
Subject: [3002] Re: FOX announcement
Message-ID: <199610281315.GAA17439@dancris.com>

At 10:12 PM 10/27/96 EST, you wrote:
>

>I will be active from 0100-0300utc on 29 October. That's 8pm - 10pm EST
>local time on Monday 28 October.
>
>
Now we should see the scores in the CA-TX race change some...doesn't that translate to some time in the middle of the PST rush hour? :^).
73,
Bob, KI7MN QRP-L #271, NorCal #1228, CQC #274, QRP ARCI #8918, not in any order of importance.

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: ka7you@juno.com
Subject: [3054] Re: HB: Want to buy new DMM! any suggestions?
Message-ID: <19961028.142829.2919.25.KA7YOU@juno.com>

Sam,
    Several co-workers and I have the Sears "Fluke look-a-like". It has a rugged rubber holster that will withstand dropping from a bench, (I am in industrial equipment maintenance and they take a LOT of abuse) and a fused input in case you put the probes on a live circuit in the ohms mode, or hook the ammeter across the power supply(never done that before HI!, HI!).   They have been bropped from ladders, flooded with water, and cream (we process cream into Darigold butter etc.) and one did die when it went into a vat of warm whey from a cottage cheese process. We had to drain the vat to retrieve it, so after a couple of hours in acid whey, it got into the display laminations. I always wondered how a Timex watch would have done in that test!
    It might be a bit over the budget, but a Very Good value! I don't know the current price, but it used to be $70. I heard recently that the price had come down some.
    If you want something cheap, but quite functional unit and don't plan to drop it ; I will suggest a $14 one in a Yellow hard plastic case from Harbor Freight. It does not have removeable test leads, but I have three of them.   One is in a tool box in the car, one is at work as a spare, and one is lost somewhere in my garage/workshop/ham shack.   It comes up for air occasionally when it need a new battery HI!, HI!
    If you're inclined to call Harbor Freight, (1-800-905-5220) the p/n

is 30813-1UKA.
If nothing else, get a catalog from them.
     The usual disclaimers apply-The value of any claims arising from use of this advice will be strictly limited to that which you paid for the advice! :>)
Good luck es 7 3,
    Rod Johnson KA7YOU

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: nskousen@scientech.com (Niel Skousen)
Subject: [3045] Re: Novice Fox - Tue.
Message-ID: <v02140b0cae9acf2e53a7@[198.60.91.132]>

>Howdy, Niel.
>
>You've got 3 dates in your posting. Tue, Wed, and Th. It is a hard path
>from Idaho Falls to Moscow but it will be even tougher, if I'm not sure of
>the date. :) Hope to hear you on.
>
>72,
>Randy
>WB5QMP ARCI   QRP-L   NORCAL   NWQRP ARS
>Moscow, ID

OOpps, forgot to change the Wed. & Thur. didn't I :-}

Will be on Tuesday eveing !!!

My second turn in the frying pan.....

==== Novice/Tech+ Fox =====

WA7SSA Niel Skousen
 Tue.   10.29.96   7:00-9:00pm MST (UTC-7)
 Wed.   10.30.96   0200-0400 UTC
FREQ   7.112 +/- (alt: 7121 +/-)
RIG   FT-757 @ 3.5w (may try NorCal 40 2nd hr... :-)
ANT   Inv.V @ 28 ft, legs E-W
QTH   Idaho Falls, ID
QRP-L   #119

* Standard N/T code speed warning (slow, w/ mem.loss under stress ... :-}
* Patience is a virtue (especially for you 40wpm+ CW ops on N/T Fox nite..)

TNX es GL
73
Niel

---------- -.. . .-- .- --... ... .- --------------------
Niel Skousen; S.Eng, SCIENTECH.SPG nskousen@scientech.com
208.525.3742, FAX 529.4721 Idaho Falls ID WA7SSA QRP-L.119
----------DN33wm---

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Luke Enriquez <ecsclfe@lux.latrobe.edu.au>
Subject: [3060] Re: Power Output stage of Sierra
Message-ID: <9610290125.AA14409@lux.latrobe.edu.au>

Howdy,

> > Can someone tell me what class of amplifier the Sierra has
> > as a final power output. I have seen some references to using class
> > c on CW, with heavy filtering of the output. Is this done to
> > save stanby current?
>
> Don't know about the Sierra as I do not have one but Class C amplifiers are
> capable of very high efficiency (up to 90% even, in a good design). Where CW
> is concerned, amplifier linearity is not really a big concern so there is no
> need to waste power for a linear amp which probably runs at a lower
> efficiency.

From a reply just sent to me, the Sierra has a class C output stage. I presume with any non-linear amplifier you will generate harmonics which require filtering, unless you like hearing yourself on 3 frequencies at the same time!

> > I'm asking this because I'm thinking about building a
> > linear 5W amplifier for the Sierra using IRF510 Mosfets which
> > are so cheap its not funny. Anyone who is considering the MRF
> > type Motorola Transistors, look at these devices first! MRF
> > stuff will hurt your wallet (Try $60) for a pair up to 30 Mhz,
> > 20W. IRF510's, whilst limited to a maximum freq of 14 Mhz,
> > cost $1 US from Ocean State.
>
> You might also want to consider the IRF511 and the MTP3055E (Motorola). I
> suspect the Motorola part will work better than the IRF parts. However, I
> have found that MOSFET amplifiers generally have poor efficiency at +12V.
> They work best at +24V and above. As a matter of fact I have built a few of

> these in push-pull configuration. It appears to me that their gain is quite
> low, maybe my design was poor.

    You are quite correct about efficiency. To me, the efficiency was
a minor concern as I only intended to use the amplifier when I had access
to 240 volt power and a suitable power supply. You can get better
effeciency at +24, and even more power at that voltage. The design I
was looking at gave 5W at 13.8, 1A.
    I'm not surprised that you found the gain low. However, with
Drew Diamonds design, you get 17dB at 13.8V for 5W out. Used in
Push-Pull you can supress even harmonics. He uses a 4 pole Pi
filter. Now, 17dB at 13.8 from these cheap devices sounds
fair to me.

> > occur is if parasitic osciallations occur. He overcomes this
> > by using a 470 Ohm feedback resistor from the drain to the gate.
> > Thermal considerations also apply.
>
> They really do. If not properly designed, the beasts can get really HOT and
> I mean HOT!

    Well, it shouldn't be too hard to calculate the required heat
sink. I think they have a Max Junction Tempreture of 150 deg,
but I'm not sure on that one.
>
> > Oh, parasitics are a problem because they cause the device to
> > exceed gate drain voltages and punch-through occurs. Semiconductors
> > will always be fuses with legs as you know.
>
> Yep, they are. So you have to be extra careful with the PCB layout and take
> all necessary precautions. In fact, I plan to analyze that particular
> amplifier in detail once I get through my current experiments. Please keep
> us posted as to your results.

    Okay, I will do.

> > 2ndly, IRF510's will do about 4W each I think. There are other
> > mosfets, a cheap motorola one actually, used in switch mode PSU's
> > that will give you 25W in push pull configuration. If you havn't
>
> I suspect you're referring to the abovesaid MTP3055E which turns out to be a
> rather popular part.

    I was actually refering to the MTP4N08.

> > played with home brewing before I suggest you practice with
> > these cheap mosfets before spending big bucks on proper RF
> > transistors, which will blow up much easier than the IRF devices.

>
> All things considered, a part like the 2SC1678 (Japanese equivalent for the
> MRF476) can probably put out 5W, has very high gain and requires low input
> drive, low impedance and relatively easy to use. The part costs about US$1 a
> piece here so cost is not really a major concern. The one thing I find
> attractive about MOSFET amps is their supposed efficiency. It seems that you
> can achieve very high efficiency with a properly designed amplifier and that
> means you don't need as big a heatsink as you would with bipolar amps. Don't
> know how true that is but I am sure you will find lots of literature on
> this. The one thing that bugs me the most is that they do not work well at
> +12V and I am not inclined to provide a separate +28V just for the amp.
>
    I agree, but you can't easily parralel transistors due to
thermal problems. You can easily parralel mosfets provided you
keep the keep the impedance matching section correct. The IRF510
and IRF511 both have Rds-on of 24 Ohms, which makes an excellent
value of 48 Ohms in Push Pull configuration. I will take the
finished amp to uni and give it a proper test the spectrum
analyzer.

Regards,
Luke

--
 Luke Enriquez VK3DLE   "I only cook with Non-violent
 3rd Year Electronic Engineering   fruit that pulps itself."
 Latrobe University, Victoria, Australia.
 ecsclfe@lux.latrobe.edu.au
--

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Luke Enriquez <ecsclfe@lux.latrobe.edu.au>
Subject: [3061] Re: Power Output stage of Sierra
Message-ID: <9610290132.AA22215@lux.latrobe.edu.au>

Howdy,

> > I'm asking this because I'm thinking about building a
> >linear 5W amplifier for the Sierra using IRF510 Mosfets which
> >are so cheap its not funny.
> > The amplifier I want to build would be similar but smaller
> >than the one shown in the RSGB Handbook, 5.22 or something like that
> >under the Building Blocks section. My reasoning is that I want to
> >have 5W capability when I have access to larger than normal
> >batteries (like a Car Battery) or mains power.
>

> I'm very interested in this project. I, too want to get a full "gallon"
> from my Sierra. Was told earlier that it would be very difficult to find a
> broadband amp to do the job, etc., etc., but have had the same idea you are
> persuing. I don't have access to the design (RSGB) that you mention. Do
> you have a way of sending me a copy? (email attachment??)

     Unfortunantly, no I dont have a way of sending it via email.
The design was published in the latest RSGB handbook, the Technical
Topics collection, and Amateur Radio by the WIA. I suggest if you want
to play homebrew, do buy a copy of the RSGB handbook. It is great, and
for small Homebrew stuff, like building test equipment, etc, is
a better resource than the ARRL Handbook.

> My thought was to replace the output transister of the Sierra with a
> broadband amp, but use the same output filters, etc. If a push-pull circuit
> is used, it may take a little auxilliary board placed above the present RF
> amp area, but it should work if designed carefully. (why not?) It may
> require modifying the plug in boards slightly with band-specific stuff.
>
     There are two ways it could be done. Pick off the RF and
pass it through the amplifier inside the Sierra, or use the unit
as an external amplifier. Using it externally means you dont have
to make modifications to your Sierra, but you will have to use some
sort of relay, and a RF detector to switch the relays. This will
require picking off some amount of the RF, rectifying it and
switching the relays. Its possible but will require extra work.
See what you think you want to do. If your unsure, go with the
external method, becos you ain't going to ruing anything if it doesnt
work..

Regards,
Luke

--
 Luke Enriquez VK3DLE   "I only cook with Non-violent
 3rd Year Electronic Engineering   fruit that pulps itself."
 Latrobe University, Victoria, Australia.
 ecsclfe@lux.latrobe.edu.au
--

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Mail Delivery Subsystem <MAILER-DAEMON@tiger.avana.net>
Subject: Returned mail: Can't create output

   ----- Transcript of session follows -----
binmail: cannot create lock file /usr/spool/mail/n4xy.lock

550 <n4xy@avana.net>... Can't create output
---- snip ------------

so couldn't send the info to you...

maybe your mailbox is full...

will try later today..

if no message from me by tomorrow - I could post it to QRPL - but
sure to take some flak about it HI.

73 Dave

(apologies to QRPL about the nonQRP message)

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Dana H. Myers" <myers@bigboy.West.Sun.COM>
Subject: [3038] Re: RF Amp, transformers and final notes
Message-ID: <Roam.3.0.1.846530377.11253.myers@bigboy>

Daniel wrote:

[...]

> 2. The capacitor from the output collector of the class C final is strongly
>   recommended. I removed the 390pF that I soldered into the circuit just
>   to see the effects. The spikes came right back and I could hear the hash
>   on my 2M handheld 2 feet away. With the capacitor in place, I don't see
>   any nasty spikes and no hash on VHF. Strongly recommended for new
>   design.

Well, there are a couple of reasons to shunt the amplifier transistor with
capacitance. The main reason is that the transistor device capacitances
can vary from device to device and as a result of varying bias level.
Shunting the input and output of the device with additional capacitance
and then designing the matching circuits to compensate gives some
insulation from device variation, which is quite useful. The other
reason is because of what you encountered - the device output capacitance
can resonant with the reactance of the matching circuit, which is what
causes the "nasty spikes". The nasty spikes are just the output matching
section plus the transistor output capacitance ringing at some resonant
frequency. Adding a shunt capacitor at the output lowers the resonant
frequency significantly below the operating frequency of the amplifier,
which allows the transistor to retain control.

> 3. I originally had a 4:1 output transformer in place and the original
>   circuit used about 8 bifilar turns on a T50-2 core.
[...]
>   So, my conclusion is to choose cores and wind transformers
>   intelligently. It will result in better performance.

Oh yeah - you really have to use a ferrite (not iron powder) core for
non-resonant transformers, including transmission line transformers.

[...]

> 5. I put the 2SC1971 into place after twisting the C and E pins to fit the
>   board layout. Having soldered this into place I observed a good increase
>   in output power, this being a higher gain and higher power part. The
>   MRF476 was rated for 3W. Pushing the output power beyond this resulted
>   in poor IMD performance. With the 2SC1971 in place (rated for 7W) I
>   should be safer off. This also gave me a higher ceiling. However, I
>   needed to REDUCE the drive to peak the output power. This is not
>   surprising since it only needs 40mW for optimum drive and my modified
>   driver stage can supply well past this.

Reduced input drive is a good excuse to put a resistive pad on the amplifier
input, which always improves the input match, if that is an issue.

take care!
Dana KK6JQ
Dana@Source.Net

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: kc5moe@juno.com (John E Hutter)
Subject: [2990] Re: Soldering irons
Message-ID: <19961027.225940.10319.1.KC5MOE@juno.com>

Picked up a light dimmer type temp control at Rat Shack a couple of weeks
ago. It was on the discontinued/clearance list DIRT CHEAP. Lots of
other goodies on that list too, anywhere from 10% to 50% of what the
stores pay for them. Might be worth checking out next time you're in
the neighborhood. Usual disclaimer, just have a couple of friends who
work there.

72/73 de KC5MOE -- John

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Randy Kaufman <krandy@hubcap.clemson.edu>

Subject: [3007] Re: Tree Fishin'
Message-ID: <199610281442.JAA01436@hubcap.clemson.edu>

At 11:16 AM 10/25/96 -0600, you wrote:
>Instead of the sling shot, sometimes I use just a hard ball with 1/8 inch
>nylon rope taped to it with duct tape.
        <snip>
>Hard balls and auto hoods don't mix! " Happy Rails to you!" Tom
>WB5QYT QRP-L 640
>

My favorite for low-level lofting is a tennis ball. Puncture it first,
that keeps it from bouncing too much. Tape fishing line to it with a
couple of turns of masking tape. The soft fuzzy tennis ball is pretty
harmless if it hits a car, roof, or even a window.

For serious tall-tree, precision placement, I always fall back on my
trusty recurve bow. A rubber blunt tip on a tubular-fiberglas shafted
arrow will pull a _lot_ of monofiliment a long way! It has plenty of
power, and I can always shorten the draw for less distance. It's not
as compact as the wrist-rocket, but lets me place a line more exactly.

I'm a firm believer in "God's antenna poles"!

73 Randy

+-------------------------+
 Randy Kaufman
 WD4LUJ   QRP-L #776
 krandy@hubcap.clemson.edu
+-------------------------+

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Steve Miller <kg7pv@teleport.com>
Subject: [2988] Re: Tree Fishin'-results
Message-ID: <1.5.4.32.19961028051022.0067b8a4@mail.teleport.com>

>Date: Sun, 27 Oct 1996 19:59:57 -0500 (EST)

>9) 100' of ladder line was too short to make it into the house. Will have to
>   visit the ham store this week before I can try this thing out. PLEASE,
>   SOMEONE TELL ME THIS IS GOING TO BE BETTER THAN MY ATTIC DIPOLE!

Ok, it will be better than your attic dipole. Seriously, I am waiting to

see the post after you have used the ant. I have a similar antenna up (cut to 40m) and love it. It performs well on 40, 30, 15 and 20. Good luck and welcome to antenna farming. 73/72

Steve Miller (CN-85) Norcal #308 QRP-L #109 ARCI # 9230
Norcal 40A es Oak Hills Spirit II es dipole

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Michael A. Gipe" <mgipe@reliablemeters.com>
Subject: [3018] Re: VXOs
Message-ID: <199610281645.KAA22991@multi2.pic.net>

I thought that this might be a good idea myself a while back, until I discussed it with an RF engineer friend of mine who tried using the MC13176. He said that the internal isolation was so bad that you could never bring the reference spurs down to an acceptable level. The part looks great on paper, but....

Mike K1MG

> From: Niel Skousen <nskousen@scientech.com>
> To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
> Subject: HB: Re: VXOs
> Date: Sunday, October 27, 1996 11:36 AM
>
> Another approach might be the use of the Mot. MC13176 (a single chip PLL w/
> fixed N=32) with a VXO reference. This could yeild stable frequency
> coverage greater than 150khz...
>

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: ori@HEA.COM (Ori Mizrahi-Shalom)
Subject: [3029] re: VXOs
Message-ID: <199610281752.JAA05909@salmon.heava.com>

I can confirm the range of 25-30KHz at least for a 22MHz crystal.
In fact, that's achievable from the NE602's oscilator with a varicap.

73

ORI AC6AN

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Floyd Soo, KF8AT" <hires@rust.net>
Subject: [3027] Re: W7EL? How to contact?
Message-ID: <3275BFD9.6795@rust.net>

Ahrens Tim wrote:
>
> Does anybody know if Roy has an E-mail address, or
> other method of 'rapid' communications?
>
> Thanks,
>
> Tim WA5VQK

Tim,

You will find Roy on the rec.radio.amateur.antenna newsgroup just about
every day!

72,
Floyd, KF8AT
QRP-L #392
hires@rust.net

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Dana H. Myers" <myers@bigboy.West.Sun.COM>
Subject: [3028] Re: W7EL? How to contact?
Message-ID: <Roam.3.0.1.846523972.27261.myers@bigboy>

> Ahrens Tim wrote:
> >
> > Does anybody know if Roy has an E-mail address, or
> > other method of 'rapid' communications?
> >
> > Thanks,
> >
> > Tim WA5VQK

>
>
> Tim,
>
> You will find Roy on the rec.radio.amateur.antenna newsgroup just about
> every day!

True, but newsgroups aren't e-mail ;-). Try w7el@teleport.com for Roy.

Dana KK6JQ
Dana@Source.Net

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Chuck (Jack) Hawley" <c-hawley@uiuc.edu>
Subject: [3034] Re: W7EL? How to contact?
Message-ID: <32750313.6786@uiuc.edu>

Floyd Soo, KF8AT wrote:
>
> Ahrens Tim wrote:
> >
> > Does anybody know if Roy has an E-mail address, or
> > other method of 'rapid' communications?
> >
> > Thanks,
> >
> > Tim WA5VQK
>
> Tim,
>
> You will find Roy on the rec.radio.amateur.antenna newsgroup just about
> every day!
>
> 72,
> Floyd, KF8AT
> QRP-L #392
> hires@rust.net

Also he is w7el@teleport.com

Chuck, KE9UW

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996

From: Kevin Muenzler <muenzlerk@uthscsa.edu>
Subject: [3032] RE: Want to buy new DMM! any suggestions?
Message-ID: <01BBC4CE.986FEE40@muenzlerk.uthscsa.edu>

On Monday, October 28, 1996 12:23 PM, Sam Mohan[SMTP:SMohan@tele-tv.com] wrote:
>I am in the market for a new digital multimeter. Dont need anything very fancy
>or very expensive, as my HB activities are not that intense. (The analog one I
>have is terrible when it comes to accuracy!) I solicit suggestions from fellow
>HBers. About $50 is the budget.
>
>Thanks in advance for your input.
>
>72 Sam N3UTM
>SMohan@Tele-TV.com
>
>

Radio Shack sells some pretty good ones. Some of them are
made by Fluke and sold as Micronta. I have a couple of
them and have had no problems with them.

Kevin, WB5RUE

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "Phil, AC6LS" <ac6ls@amsat.org>
Subject: [3014] Re: Working soft aluminum
Message-ID: <3274D101.2775@amsat.org>

L. B. Cebik wrote:
> ......snip...
> The hand file is so slow and
> tiring, and the soft aluminum either gums up the grinding wheel or gets
> grabbed and mutilated by it.
> ...snip...

PLEASE DO NOT USE A GRINDING WHEEL WITH ALUMINIUM !!!!!!!!!
Yes, it will "gum" up the grinding wheel, but the real theat is that
the wheel will have the potential to EXPLODE ! People have been KILLED
from doing this.
If you must take off a large ammount of aluminum, use a bandsaw (or
eqiv.)
the next best is a beltsander/discsander.

Best tools to use are HAND TOOLS. Files, are the best and allow a
greater accuracy, not to mention a much nicer finish.
Use Power tools to get to the point where you can
use hand tools. Power tools take alot of material FAST.

just a word to the wise, be safe 73 de Phil

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: Kevin Muenzler <muenzlerk@uthscsa.edu>
Subject: [3019] RE: Working soft aluminum
Message-ID: <01BBC4BD.AF2C4E00@muenzlerk.uthscsa.edu>

On Monday, October 28, 1996 9:28 AM, Phil, AC6LS[SMTP:ac6ls@amsat.org] wrote:
>L. B. Cebik wrote:
>> ......snip...
>> The hand file is so slow and
>> tiring, and the soft aluminum either gums up the grinding wheel or gets
>> grabbed and mutilated by it.
>> ...snip...
>
>
>PLEASE DO NOT USE A GRINDING WHEEL WITH ALUMINIUM !!!!!!!!!
>Yes, it will "gum" up the grinding wheel, but the real theat is that
>the wheel will have the potential to EXPLODE ! People have been KILLED
>from doing this.
>If you must take off a large ammount of aluminum, use a bandsaw (or
>eqiv.)
>the next best is a beltsander/discsander.
>
>
>Best tools to use are HAND TOOLS. Files, are the best and allow a
>greater accuracy, not to mention a much nicer finish.
>Use Power tools to get to the point where you can
>use hand tools. Power tools take alot of material FAST.
>
>
>
>just a word to the wise, be safe 73 de Phil
>
>

I can sure vouch for that one! I've seen grinding wheels
come apart because of the extra, unbalanced, mass placed
upon them by grinding aluminum. You have to remember that

these things are just a bunch of "sand" that has been
glued together. At 3000+ RPM the G-forces are tremendous.
It takes only a few grams of aluminum to cause one to
crack and fly apart. As Phil stated the best tools for
tooling aluminum are hand tools, usually non-power driven
ones (sorry Mr. Binford).

Kevin, WB5RUE

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: emaaro@pacbell.net
Subject: [3022] Re: Working soft aluminum
Message-ID: <3274E4FE.3C3F@pacbell.net>

L. B. Cebik wrote:
>
> Some messages a short while back showed some concern for working the kind
> of soft aluminum out of which chassis, cases, and utility boxes are made.
> Adjusting dimension by an eighth of an inch, deburring edges cut with a
> hack saw, rounding corners, etc. are all problems if all you have is
> either a hand file or a grinding wheel. The hand file is so slow and
> tiring, and the soft aluminum either gums up the grinding wheel or gets
> grabbed and mutilated by it.

snip.......

> NOTE: YES, I AM SHOUTING: WEAR SAFETY GLASSES WHEN WORKING WITH THIS
> KIND OF EQUIPMENT!
> snip.......

> -73-
>
> LB, W4RNL

LB AND ALL:
LB suggested not using a bench grinder but didn't say what happens
after the grinding wheel is clogged which brings up this point to
consider:
DO NOT USE A BENCH GRINDER!!! THE SOFT ALUMINUM WILL CLOG THE GRINDING
WHEEL AND CAUSE AN "OUT OF BALANCE" CONDITION THAT IS EXTREMELY
DANGEROUS!!! GRINDING WHEELS HAVE EXPLODED AND INJURED PEOPLE!!!
I REPEAT: EXTREMELY DANGEROUS !!!
No opologies for the shouting or bandwidth, it's a safety issue.

I am a fan of LB and printout over 95% of what he writes in qrp-l. This

so I can read it over and over and learn from his postings. Thank you LB.

72s,73s   emaaro

From owner-qrp-l@Lehigh.EDU Mon Oct 28 23:12:11 1996
From: "David D. Meacham" <ddm@datatamers.com>
Subject: [3070] Re: xtal wanted
Message-ID: <Pine.LNX.3.91.961028211802.5671E-100000@dt1.datatamers.com>

Tom,
I believe NorCal still has some (in HC-18 cases, I think). Doug is away
so contact Jim Cates at: wager@juno.com
72, Dave, W6EMD